

Claims

1. A closure for a passageway having one or more walls and an opening defined by the wall or walls, the closure adapted in use to extend from the opening at least part way along the wall or walls, characterised in that the closure has a concertina element adapted to retain the closure in use in place between the wall or walls, the concertina element being capable of being released to allow the closure to be removed from the wall or walls.  
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2. The closure of claim 1, wherein the passageway is a bottle neck.
3. The closure of claim 1, wherein the passageway is of regular cross-section.
- 10 4. The closure of claim 1, wherein the wall or walls are ribbed, threaded or smooth.
5. The closure of claim 1, wherein the closure seals the opening completely in situ.
- 15 6. The closure of claim 5, wherein the closure seals the opening defined by the wall or walls.
7. The closure of claim 5, wherein the closure seals the opening defined by the wall or walls and extends to the external dimension of the wall or walls.
- 20 8. The closure of claim 1, wherein the concertina element is adapted to retain the closure in use in place between the wall or walls when folded, the concertina element being capable of being unfolded to allow the closure to be removed from the wall or walls.
9. The closure of claim 1, wherein the closure is retained in place by friction.
10. The closure of claim 1, wherein the concertina element has external folds which bear against the wall or walls of the passageway when the closure is in situ.  
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11. The closure of claim 1, wherein the concertina element includes an intermediate wall or walls and the concertina element has folds which bear against the intermediate wall or walls.
12. The closure of claim 11, wherein the intermediate wall or walls bear against the wall or walls of the passageway.
13. The closure of claim 1, wherein the concertina element has compressible folds.
14. The closure of claim 1, wherein the concertina element has folds forming a spiral.
15. The closure of claim 10, wherein a collapsible core is included within the concertina element.
16. The closure of claim 15, wherein the concertina folds are adapted to retain the closure in place by tension, release of the tension enabling removal of the closure.
17. The closure of claim 1, wherein the concertina element is adapted to be released by manipulation of a cord or ribbon attached to the closure.
18. The closure of claim 1, wherein the concertina element is adapted to retain the closure in place by a locking element adapted to be unlocked by remote activation means to allow the closure to be removed from the wall or walls.
19. The closure of claim 18, wherein the locking element is adapted to be unlocked by application of a magnetic field.
20. The closure of claim 1, wherein the concertina element is adapted to be compressed in order to retain the closure in use between the wall or walls.
21. A closure including processing means, the processing means being adapted to carry out one or more of the following functions: interaction with external processing means, receipt, storage and communication of data and/or

information, receipt and/or sending of data and/or information from or to one or more sources internal and/or external to the closure, and storage of information wherein not all of the information is pre-programmed.

22. A closure for a container adapted to store contents, the closure including:

5 seal means to resist the inadvertent escape of the contents from the container when in a sealed position and releasable to permit the dispensing of the contents in an open position;

10 processing means capable of interacting with external processing means and being adapted to receive, store and communicate data and/or information concerning the contents whilst the sealed means is in the sealed position,

wherein the processing means is physically housed in or on the closure and is adapted to receive and/or send data and/or information from or to one or more sources internal and/or external to the container.

23. The closure of claim 22, wherein the container is adapted to store a beverage, a

15 foodstuff, a pharmaceutical product or one or more chemicals in powdered, liquid and/gaseous form.

24. The closure of claim 22, which is in the form of a plug, cap or membrane seal.

25. The closure of claim 22, which includes tamper-evidence or securing means.

26. The closure of claim 22, which includes security or locking means to resist unauthorised access.

27. The closure of claim 22, wherein the seal means is releasable upon receipt of an encrypted signal.

28. The closure of claim 22, wherein the seal means includes the closure claimed in any one of claims 1 to 22.

29. The closure of claim 22, wherein the processing means includes computer processing means.
30. The closure of claim 29, wherein the processing means is capable of communicating remotely with an external processing means.
- 5 31. The closure of claim 29, wherein the processing means is programmable upon input from an external source and has read/write capabilities.
32. The closure of claim 22, wherein the processing means is physically housed in the closure.
33. The closure of claim 29 wherein the processing means includes communication ports externally accessible to a user.
- 10 34. The closure of claim 29 wherein the processing means is linked to sensing means capable of determining real time status or characteristics of the contents.
35. The closure of claim 34, wherein the sensing means is adapted to sense one or more of: temperature, movement, pressure, chemical and gas.
- 15 36. The closure of claim 22, wherein the seal means is releasable by remote activation means.
37. The closure of claim 36, wherein the remote activation means includes one or more magnetic elements adapted to move from a position corresponding to the sealed position to a position enabling release of the closure from the container.
- 20 38. The closure of claim 37, wherein the remote activation means includes magnetic inductance means.
39. The closure of claim 22, wherein the seal means includes shape-memory material and is adapted to assume the sealed position or the open position upon application of heat, electrical current or electrical magnetic radiation.

40. A closure substantially as herein described with reference to Figures 1 and 2 or Figures 3 and 4 or Figures 5 and 6 or Figures 7 and 8 or Figures 9 and 10 or Figures 11 to 19 or Figures 20 and 21 or Figures 22 to 27 or Figures 28 to 30 of the accompanying drawings.
- 5 41. A closure substantially as herein described with reference to Figures 31 to 34 or Figures 35 to 38 or Figures 39 to 41 or Figures 42 and 43 or Figures 44 to 47 or Figures 48 to 50 of the accompanying drawings.